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June 21, 1993

MEMORANDUM

SUBJECT: Site Inspection Prioritization - Level 1
Aluminum Recycling Corporation (WAD98072279)
Contract 068-W9-0009
Work Assignment C1003922

FROM: Tom Slocum, PRC

TO: Debbie Robinson, EPA

PRC has completed a Level I site inspection prioritization (SIP) and a preliminary hazard ranking system (HRS) PREscore for the Aluminum Recycling Corporation (ARC) site on Sullivan Road in Spokane, Washington. The score was calculated at **20.13.** This HRS report and score incorporates EPA's June 10, 1993 comments to the draft HRS report and score.

Prescore Assumptions and Results.

The assumptions used to evaluate the site and the resulting pathway scores are described below.

Sources and Hazardous Substance Concentrations. The available site documentation does not contain an accurate estimate of the area and volume of the dross piles. The 1988 preliminary HRS scoring uses a waste volume of 5,000 cubic yards. The documentation for the 1988 scoring does not state whether the waste volume estimate includes both dross piles on the site or just the pile on the eastern portion, (i.e., the portion that formerly was leased by ARC). Regardless, the Washington Department of Ecology (Ecology) 1987 field sketch and photos, as well as field observation by PRC in 1993 suggest that 5,000 cubic yards is an underestimation of the actual size of either of the two piles. Imperial West Chemical (IWC) reports that currently, the smaller pile contains about 7,500 cubic yards of dross. Based on the pile dimensions in Ecology's field notes and IWC's report, a conservative estimate of 15,000 cubic yards and an area of 45,000 square feet was assumed for the PREscore evaluation.

Conservative assumptions regarding the concentrations of hazardous substances in the dross were developed using the most recent TCLP metals data from the dross piles at the ARC Wellesley site. As explained in the SIP report, these data are likely representative of the ARC Sullivan Road dross piles as well. Based on these data and on the dross mineral assay, aluminum, ammonia, and barium were evaluated as hazardous substances. For the purposes of the PREscore HRS model, the following concentrations (in TCLP leachate) were assumed.

Aluminum	100 mg/L
Ammonia	Potential
Barium	1.7 mg/L

The barium concentration is the mean of the five 1992 TCLP samples. Ammonia has not been tested. The aluminum concentration is assumed based on a dross mineral assay of 10 percent aluminum. The accuracy of these concentration assumptions has little effect on PREscore; variations in the concentrations over two orders of magnitude did not change the HRS score.

Groundwater Pathway. The PREscore evaluation lead to a calculated groundwater pathway score of 40.11, based on the potential for releases from the site to contaminate all recorded water supply wells within a 4-mile radius. The limited available groundwater monitoring data at the site indicate, however, that the dross has not impacted the aquifer beneath the site. The 1985 data show that the chloride concentration in the groundwater is not significantly elevated above background, suggesting that metals from the dross have also not affected the groundwater. An extensive groundwater sampling program conducted by Spokane County in the late 1970s found detectable levels of metals (except zinc, which is ubiquitous) in only 1 of 200 wells in the area. Nevertheless, because of the relatively high conductivity of the gravelly soils (hydraulic conductivity = 1×10^{-2} cm/sec) and because of the large population that depends on public water supply wells downgradient of the site, the potential for human health impacts is high.

The Spokane-Rathdrum aquifer is the sole-source aquifer for the Spokane area. In the Trentwood area east of Spokane where the ARC site is located, the aquifer flows primarily east to west, down the Spokane River Valley, at a rate estimated at 6 to 8 feet per day. Groundwater pumping has an insignificant effect on the general aquifer flow; heavy pumping at public water supply wells is reported to result in drawdown of approximately 1 foot within a 6-inch radius, and instantaneous recovery. In the immediate vicinity of the ARC site, the aquifer flow is reported to exhibit a southern trend, which is especially pronounced during spring runoff, when the aquifer may discharge into the river. The aquifer is approximately 150 feet below the surface at the ARC site, and is overlain by gravel and gravelly loam soils.

Observations at other aluminum dross piles in the Spokane area suggest that spring rains and runoff can quickly leach chlorides from the dross into the groundwater. The chloride concentration in water from a well located on the Kaiser Aluminum Trentwood site, about 1.0 mile north of the ARC site, is reported to jump from 5 mg/L to 1000 mg/L shortly after heavy spring rains fall on a dross pile about 200 yards upgradient.

A groundwater pathway target population of 49,128 people was estimated by identifying the number of people served by public and domestic water supply wells within 4 miles of the site. Table 1 lists the wells, the population served by each, and their distance from the site. Four public water supply systems: Trentwood Irrigation District No. 3; the Consolidated Irrigation District No. 19, System No. 1; the Modern Electric Water Company; and the Vera Water and Power Company use several wells located at varying distances from the site. A target population was estimated for each of these wells by apportioning the entire system service population equally among them.

The groundwater target population is the single most significant factor in the calculation of the HRS score. The conservative groundwater target population estimates include all wells within 4 miles of the site, regardless of whether the wells are upgradient of the general east-to-west flow. If the population served by upgradient wells is subtracted from the total target population, the groundwater pathway score drops to 28.85, for an overall site score of 14.50. During heavy spring runoff and rains, however, when the potential for releases from the dross piles is the greatest,

even the pathway score of 28.85 may be overly conservative. In spring, the groundwater flow direction reportedly trends southward and discharges into the Spokane River. Thus, during spring, wells northwest of the site may be upgradient. In particular, the Kaiser Aluminum Trentwood Mill, approximately 1 mile northwest of the site, may not be downgradient of the site during spring rains. Subtracting the 2,490 Kaiser workers served by this well results in a PREscore groundwater pathway score of 20.85 and an overall site score of 10.53.

Surface Water Migration Pathway. The surface water pathway was modeled with the PREscore package, but had little effect on the overall site score. The dross piles are uncontained and unprotected from precipitation or run on, but the site is not within a flood zone. Runoff is reported to discharge through drains into the Spokane River, about 700 feet from the site. The river segment from the point of entry downstream through Spokane to the confluence of Hangman Creek, approximately 15 miles, is used to a limited extent for irrigation water and recreation, but not for drinking water supply. A recreational trout fishery is reported in this river segment, but, except for an unconfirmed report of a fish kill in 1973, there is no evidence that hazardous substances from the site have affected the fishery in any way. For the purposes of the PREscore evaluation, it was assumed that wetland frontage existed along the entire 15-mile river segment. Using these conservative assumptions as inputs, the surface water overland/flood components calculated a drinking water threat of 0.31 (for agricultural uses); a food chain threat of 0.0; and an environmental threat of 0.0. The total surface water score was 0.31.

Soil Exposure Pathway. The soil exposure pathway was evaluated, but had little effect on the overall site score. For the purposes of the PREscore evaluation, the dross piles themselves were assumed to represent the soil at the site. No other soil sampling data are available. The dross piles are not covered, public access to the site is not restricted by a maintained fence. Approximately 15 people work at the IWC plant located in the western portion of the site. The soil exposure pathway threat to these workers and the 5,380 people living within 1 mile of the site was calculated as 1.07.

Air Exposure Pathway. The air exposure pathway modeling contributed to the site score, but was a minor component compared to the groundwater pathway. Because the piles are not covered or otherwise managed by engineered controls, there is a moderate potential for both gas (ammonia) and particulate release. No observed releases were included in the model because the baghouse violations reported in the site file occurred in 1984, while the plant was still operating. Potential air pathway targets include the 15 workers on the site and the 50,000 people identified in EPA's site inspection report as living within 3 miles of the site. Agricultural resources may be impacted by air releases from the site, but no terrestrial sensitive environments were identified within the site vicinity. Based on these data, the PREscore package calculated an air migration pathway score of 3.39.

Recommendations

The potential risks that the dross piles pose to the Spokane water supply aquifer drive the site score of 20.13. Although wells serving over 49,000 people are reported within 4 miles of the site, the available files do not contain enough site-specific hydrogeological data to confirm whether all of these wells could reasonably be impacted by a release at the site. Development of more site-specific hydrogeological data, including sampling of the on-site monitoring wells and soils beneath the dross piles would be helpful.

Imperial West Chemical Company is currently using dross from the ARC site in its concrete manufacturing process. Clarification and documentation of IWC's plans and schedule for future use of the dross piles would help to determine whether the dross piles will remain an environmental concern in the future.

Information Sources

Information used to calculate the score for this site was derived from the following documents contained in the EPA site file:

Ecology and Environment, Inc. 1988. Site Inspection Reassessment/Preliminary HRS Score for Aluminum Recycling Corporation, Spokane, Washington. Prepared for EPA.

US Environmental Protection Agency 1988. Potential Hazardous Waste Site Inspection Report.

US Environmental Protection Agency 1985. Potential Hazardous Waste Site Preliminary Assessment.

Washington Department of Ecology 1987. Phase 1 Site Inspection Report, Aluminum Recycling Corporation, Trentwood, Spokane, Washington.

State of Washington Public Water Supply Listing, 03/20/85.

Environmental Management Resources, Inc., Results of Dross Sampling and Analysis, September, 1992.

The following individuals were also consulted:

Mr. Sherman Spencer, Washington Department of Ecology Eastern Regional Office Toxics Cleanup Program, (509) 456-2962 (personal communication).

Mr. Stan Miller, Spokane Aquifer Program Manager, Spokane County Engineering Department, (509) 456-3600 (personal communication).

Mr. Marty Coleman, Environmental Affairs, Imperial West Chemical Company, (509) 922-2244 (personal communication).

Mr. Eric Johnson, Fisheries Biologist, Washington Water Power Company, (509) 489-0500 (personal communication).

U.S.G.S. topographical maps and Representatives of the Washington Department of Wildlife and the Spokane County Health Department were also consulted.

TABLE 1

ESTIMATION OF GROUNDWATER TARGET POPULATION

Well Code	Water Supply Well System Name	Distance from site (miles)	Direction from site[a]	Population Served
BS	Aluminum Recycling Corp.	0.0	onsite	15
BU	Sullivan Park (Spokane County)	0.3	SE	100
BV	Central Premix Co.	0.5	NE	1
BR	Cominco Electronic Materials Co.	0.6	N	160
BT	Consolidated Irrigation District No. 19, System 2	0.8	W	900
BE	Kaiser Aluminum Trentwood Mill	1.0	N	2,490
BQ	Mirabeau Park (Spokane County)	1.1	W	160
BC	Spokane Industrial Park Well No. 3	1.1	E	500
BA	Spokane Industrial Park Well No. 1	1.1	NE	500
BD	Spokane Industrial Park Well No. 4	1.2	NE	500
CG	Vera Water and Power Co. Well No. 2	1.2	S	1,896
BB	Spokane Industrial Park Well No. 2	1.3	NE	500
BI	Trentwood Irrigation District No. 3, Well No. 5	1.3	N	920
BJ	Trentwood Irrigation District No. 3, Well No. 6	1.4	N	920
CF	Vera Water and Power Co. Well No. 1	1.4	SW	1,896
BG	Trentwood Irrigation District No. 3, Well No. 3	1.6	N	920
CL	Vera Water and Power Co. Well No. 7	1.6	S	1,896
BF	Trentwood Irrigation District No. 3, Well No. 2	1.7	N	920
CA	Modern Electric Water Co. Well No. 5	1.9	SE	1,530
BW	Modern Electric Water Co. Well No. 1	1.9	SW	1,530
BH	Trentwood Irrigation District No. 3, Well No. 4	2.0	NW	920
	Private Domestic Wells (87 families)	2.0 (est.)		305
BL	Irvin Water District No. 6, Well No. 3	2.1	W	588
CO	Consol. Irrig. Dist. No. 19, Sys. 1, Wells 5A-5C	2.2	E	1,259
BP	WSDA Pines Road Maintenance	2.3	W	4
BN	Pinecroft Mobile Home Park	2.4	W	250

TABLE 1 (continued)

ESTIMATION OF GROUNDWATER TARGET POPULATION

Well Code	Water Supply Well System Name	Distance from site (miles)	Direction from site[a]	Population Served
CM	Consol. Irrig. Dist. No. 19, Sys. 1, Wells 2A-2C	2.4	SE	1,259
BK	Irvin Water District No. 6, Well Nos. 1 and 2	2.5	W	1,175
CH	Vera Water and Power Well No. 3	2.5	S	1,896
CJ	Vera Water and Power Well No. 5	2.5	S	1,896
CN	Consol. Irrig. Dist. No. 19, Sys. 1, Wells 3A-4D	2.5	E	2,937
BM	Irvin Water District No. 6, Well No. 4	2.8	W	587
BO	Systems Transport, Inc.	2.8	W	12
BX	Modern Electric Water Co. Well No. 2	2.8	W	1,530
BY	Modern Electric Water Co. Well No. 3	2.8	W	1,530
CK	Vera Water and Power Co. Well No. 6	2.8	SW	1,896
CC	Modern Electric Water Co. Well No. 7	2.9	SW	1,530
CD	Modern Electric Water Co. Well No. 8	3.0	W	1,530
CI	Vera Water and Power Co. Well No. 4	3.0	S	1,896
AI	Town of Millwood Source No. 2	3.0	W	574
CE	Modern Electric Water Co. Well No. 9	3.3	SW	1,530
AH	Town of Millwood Park Source No. 3	3.5	W	573
CB	Modern Electric Water Co. Well No. 6	3.7	W	1,530
AG	Town of Millwood Source No. 2	3.8	W	573
CP	Consol. Irrig. Dist. No. 19, Sys. 1, Wells 6A-6C	3.8	E	1,259
BZ	Modern Electric Water Co. Well No. 4	3.9	W	2,530
	TOTAL			49,128

a Wells located generally east, south, and north of the site are reported to be in the upgradient groundwater flow direction from the site.

Source: State of Washington Public Water Supply System Listing, March 20, 1985

HRS DOCUMENTATION RECORD
Aluminum Recycling Corp. Trentwood - 06/01/93

1. Site Name: Aluminum Recycling Corp. Trentwood
   (as entered in CERCLIS)

2. Site CERCLIS Number: WAD980722979

3. Site Reviewer: Tom Slocum

4. Date: April 2, 1993

5. Site Location: Spokane, Spokane County, Washington
   (City/County,State)

6. Congressional District: 05

7. Site Coordinates: Single

   Latitude: 47 40'42. Longitude: 117 11'44.

	Score
Ground Water Migration Pathway Score (Sgw)	40.11
Surface Water Migration Pathway Score (Ssw)	0.31
Soil Exposure Pathway Score (Ss)	1.07
Air Migration Pathway Score (Sa)	3.39

Site Score	20.13

NOTE

EPA uses the terms "facility," "site," and "release" interchangeably. The term "facility" is broadly defined in CERCLA to include any area where hazardous substances have "come to be located" (CERCLA Section 109(9)), and the listing process is not intended to define or reflect boundaries of such facilities or releases. Site names, and references to specific parcels or properties, are provided for general identification purposes only. Knowledge regarding the extent of sites will be refined as more information is developed during the RI/FS and even during implementation of the remedy.

1. WASTESTREAM QUANTITY SUMMARY TABLE, SOURCE: Waste Piles

a. Wastestream ID	
b. Hazardous Constituent Quantity (C) (lbs.)	0.00
c. Data Complete?	NO
d. Hazardous Wastestream Quantity (W) (lbs.)	0.00
e. Data Complete?	NO
f. Wastestream Quantity Value (W/5,000)	0.00E+00

2. SOURCE HAZARDOUS WASTE QUANTITY FACTOR TABLE

a. Source ID	Waste Piles
b. Source Type	Waste Pile
c. Secondary Source Type	N.A.
d. Source Volume (yd3) | Source Area (ft2)	15000.00 | 45000.00
e. Source Volume/Area Value	6.00E+03
f. Source Hazardous Constituent Quantity (HCQ) Value (sum of 1b)	0.00E+00
g. Data Complete?	NO
h. Source Hazardous Wastestream Quantity (WSQ) Value (sum of 1f)	0.00E+00
i. Data Complete?	NO
k. Source Hazardous Waste Quantity (HWQ) Value (2e, 2f, or 2h)	6.00E+03

Source Hazardous Substances	Depth (feet)	Liquid	Concent.	Units
Aluminum	< 2	NO	1.0E+02	ppm
Ammonia	< 2	NO	0.0E+00	ppm
Barium	< 2	NO	1.7E+00	ppm

Documentation for Source Hazardous Substances:

Barium was detected in TCLP leachate from all samples of dross at dross piles at the ARC Welleslay Avenue site in September, 1992. The mean concentration of these samples is 1.7 mg/l. These samples are probably representative of the dross at the ARC Sullivan Road site, because much of the dross at the Wellesley Ave. site was transported to the Sullivan Road site in 1986.

Aluminum and ammonia were not tested. Based on a mineral assay of the dross, 100 mg/l in TCLP leachate is a conservative estimate. No data is available for ammonia, therefore, the concentration is listed as potential only.

Reference:

Documentation for Source Volume:

The 1988 Preliminary HRS scoring by Ecology and Environment uses a waste volume of 5,000 cy. The field sketch and the photos in the 1987 WDOE Phase 1 Site Inspection Report suggest that 5,000 cubic yards underestimates the volume of the two waste piles on site. A 1986 field survey by WDOE measured the area of one pile as 33,800 square feet and height 10 feet (= 12,500 cubic yards). It is unknown whether this pile is still on site. In 1993, an IWC employee reported that one pile currently on site is about 7,500 tons and the other pile is larger. Based on this information, a conservative estimate of the volume and area of 15,000 cubic yards and 45,000 square feet, respectively, was used for PREscore.

Reference:

Documentation for Source Area:

Reference:

3. SITE HAZARDOUS WASTE QUANTITY SUMMARY

No.	Source ID	Migration Pathways	Vol. or Area Value (2e)	Constituent or Wastestream Value (2f,2h)	Hazardous Waste Qty. Value (2k)
1	Waste Piles	GW-SW-SE-A	6.00E+03	0.00E+00	6.00E+03

4. PATHWAY HAZARDOUS WASTE QUANTITY AND WASTE CHARACTERISTICS SUMMARY TABLE

Migration Pathway	Contaminant Values		HWQVs*	WCVs**
Ground Water	Toxicity/Mobility	1.00E+02	100	10
SW: Overland Flow, DW	Tox./Persistence	1.00E+04	100	32
SW: Overland Flow, HFC	Tox./Persis./Bioacc.	5.00E+03	100	18
SW: Overland Flow, Env	Etox./Persis./Bioacc.	5.00E-01	100	2
SW: GW to SW, DW	Tox./Persistence	1.00E+02	100	10
SW: GW to SW, HFC	Tox./Persis./Bioacc.	5.00E+01	100	6
SW: GW to SW, Env	Etox./Persis./Bioacc.	3.50E-01	100	2
Soil Exposure:Resident	Toxicity	1.00E+04	100	32
Soil Exposure: Nearby	Toxicity	1.00E+04	100	32
Air	Toxicity/Mobility	1.00E+01	100	6

* Hazardous Waste Quantity Factor Values
** Waste Characteristics Factor Category Values

Note: SW = Surface Water
GW = Ground Water
DW = Drinking Water Threat
HFC = Human Food Chain Threat
Env = Environmental Threat

GROUND WATER MIGRATION PATHWAY SCORESHEET
Aluminum Recycling Corp. Trentwood - 06/01/93

GROUND WATER MIGRATION PATHWAY Factor Categories & Factors	Maximum Value	Value Assigned
Likelihood of Release to an Aquifer Aquifer: Spokane-Rathdrum		
1. Observed Release	550	0
2. Potential to Release		
2a. Containment	10	10
2b. Net Precipitation	10	6
2c. Depth to Aquifer	5	3
2d. Travel Time	35	35
2e. Potential to Release [lines 2a(2b+2c+2d)]	500	440
3. Likelihood of Release	550	440
Waste Characteristics		
4. Toxicity/Mobility	*	1.00E+02
5. Hazardous Waste Quantity	*	100
6. Waste Characteristics	100	10
Targets		
7. Nearest Well	50	2.00E+01
8. Population		
8a. Level I Concentrations	**	0.00E+00
8b. Level II Concentrations	**	0.00E+00
8c. Potential Contamination	**	7.27E+02
8d. Population (lines 8a+8b+8c)	**	7.27E+02
9. Resources	5	5.00E+00
10. Wellhead Protection Area	20	0.00E+00
11. Targets (lines 7+8d+9+10)	**	7.52E+02
12. Targets (including overlaying aquifers)	**	7.52E+02
13. Aquifer Score	100	40.11
GROUND WATER MIGRATION PATHWAY SCORE (Sgw)	100	40.11

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
Aluminum Recycling Corp. Trentwood - 06/01/93

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors DRINKING WATER THREAT	Maximum Value	Value Assigned
Likelihood of Release		
1. Observed Release	550	0
2. Potential to Release by Overland Flow		
2a. Containment	10	10
2b. Runoff	25	0
2c. Distance to Surface Water	25	16
2d. Potential to Release by Overland Flow [lines 2a(2b+2c)]	500	160
3. Potential to Release by Flood		
3a. Containment (Flood)	10	0
3b. Flood Frequency	50	0
3c. Potential to Release by Flood (lines 3a x 3b)	500	0
4. Potential to Release (lines 2d+3c)	500	160
5. Likelihood of Release	550	160
Waste Characteristics		
6. Toxicity/Persistence	*	1.00E+04
7. Hazardous Waste Quantity	*	100
8. Waste Characteristics	100	32
Targets		
9. Nearest Intake	50	0.00E+00
10. Population		
10a. Level I Concentrations	**	0.00E+00
10b. Level II Concentrations	**	0.00E+00
10c. Potential Contamination	**	0.00E+00
10d. Population (lines 10a+10b+10c)	**	0.00E+00
11. Resources	5	5.00E+00
12. Targets (lines 9+10d+11)	**	5.00E+00
13. DRINKING WATER THREAT SCORE	100	0.31

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
Aluminum Recycling Corp. Trentwood - 06/01/93

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors HUMAN FOOD CHAIN THREAT	Maximum Value	Value Assigned
Likelihood of Release		
14. Likelihood of Release (same as line 5)	550	160
Waste Characteristics		
15. Toxicity/Persistence/Bioaccumulation	*	5.00E+03
16. Hazardous Waste Quantity	*	100
17. Waste Characteristics	1000	18
Targets		
18. Food Chain Individual	50	0.00E+00
19. Population		
19a. Level I Concentrations	**	0.00E+00
19b. Level II Concentrations	**	0.00E+00
19c. Pot. Human Food Chain Contamination	**	0.00E+00
19d. Population (lines 19a+19b+19c)	**	0.00E+00
20. Targets (lines 18+19d)	**	0.00E+00
21. HUMAN FOOD CHAIN THREAT SCORE	100	0.00

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
Aluminum Recycling Corp. Trentwood - 06/01/93

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors ENVIRONMENTAL THREAT	Maximum Value	Value Assigned
Likelihood of Release		
22. Likelihood of Release (same as line 5)	550	160
Waste Characteristics		
23. Ecosystem Toxicity/Persistence/Bioacc.	*	5.00E-01
24. Hazardous Waste Quantity	*	100
25. Waste Characteristics	1000	2
Targets		
26. Sensitive Environments		
26a. Level I Concentrations	**	0.00E+00
26b. Level II Concentrations	**	0.00E+00
26c. Potential Contamination	**	5.00E-02
26d. Sensitive Environments (lines 26a+26b+26c)	**	5.00E-02
27. Targets (line 26d)	**	5.00E-02
28. ENVIRONMENTAL THREAT SCORE	60	0.00
29. WATERSHED SCORE	100	0.31
30. SW: OVERLAND/FLOOD COMPONENT SCORE (Sof)	100	0.31

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

SOIL EXPOSURE PATHWAY SCORESHEET
Aluminum Recycling Corp. Trentwood - 06/01/93

SOIL EXPOSURE PATHWAY Factor Categories & Factors RESIDENT POPULATION THREAT	Maximum Value	Value Assigned
Likelihood of Exposure		
1. Likelihood of Exposure	550	550
Waste Characteristics		
2. Toxicity	*	1.00E+04
3. Hazardous Waste Quantity	*	100
4. Waste Characteristics	100	32
Targets		
5. Resident Individual	50	0.00E+00
6. Resident Population		
6a. Level I Concentrations	**	0.00E+00
6b. Level II Concentrations	**	0.00E+00
6c. Resident Population (lines 6a+6b)	**	0.00E+00
7. Workers	15	5.00E+00
8. Resources	5	0.00E+00
9. Terrestrial Sensitive Environments	***	0.00E+00
10. Targets (lines 5+6c+7+8+9)	**	5.00E+00
11. RESIDENT POPULATION THREAT SCORE	**	8.80E+04

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.
*** No specific maximum value applies, see HRS for details.

SOIL EXPOSURE PATHWAY SCORESHEET
Aluminum Recycling Corp. Trentwood - 06/01/93

SOIL EXPOSURE PATHWAY Factor Categories & Factors NEARBY POPULATION THREAT	Maximum Value	Value Assigned
Likelihood of Exposure		
12. Attractiveness/Accessibility	100	1.00E+01
13. Area of Contamination	100	2.00E+01
14. Likelihood of Exposure	500	5.00E+00
Waste Characteristics		
15. Toxicity	*	1.00E+04
16. Hazardous Waste Quantity	*	100
17. Waste Characteristics	100	32
Targets		
18. Nearby Individual	1	0.00E+00
19. Population Within 1 Mile	**	3.00E+00
20. Targets (lines 18+19)	**	3.00E+00
21. NEARBY POPULATION THREAT SCORE	**	4.80E+02
SOIL EXPOSURE PATHWAY SCORE (Ss)	100	1.07

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

AIR PATHWAY SCORESHEET
Aluminum Recycling Corp. Trentwood - 06/01/93

AIR MIGRATION PATHWAY Factor Categories & Factors	Maximum Value	Value Assigned
Likelihood of Release		
1. Observed Release	550	0
2. Potential to Release		
2a. Gas Potential to Release	500	230
2b. Particulate Potential to Release	500	450
2c. Potential to Release	500	450
3. Likelihood of Release	550	450
Waste Characteristics		
4. Toxicity/Mobility	*	1.00E+01
5. Hazardous Waste Quantity	*	100
6. Waste Characteristics	100	6
Targets		
7. Nearest Individual	50	2.00E+01
8. Population		
8a. Level I Concentrations	**	0.00E+00
8b. Level II Concentrations	**	0.00E+00
8c. Potential Contamination	**	8.30E+01
8d. Population (lines 8a+8b+8c)	**	8.30E+01
9. Resources	5	0.00E+00
10. Sensitive Environments		
10a. Actual Contamination	***	0.00E+00
10b. Potential Contamination	***	6.25E-01
10c. Sens. Environments(lines 10a+10b)	***	6.25E-01
11. Targets (lines 7+8d+9+10c)	**	1.04E+02
AIR MIGRATION PATHWAY SCORE (Sa)	100	3.39E+00

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.
*** No specific maximum value applies, see HRS for details.